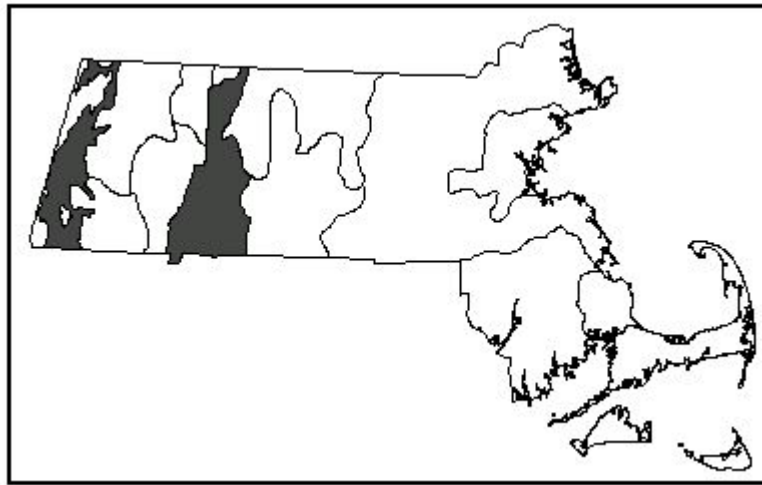


Community Name: CALCAREOUS SLOPING FEN
Community ELCODE: CP2B0A1000
SRANK: S2



Concept: Open, sedge-dominated wetlands occurring on slight to moderate slopes where there is calcareous groundwater seepage. Calcareous sloping fens are the most nutrient- and species-rich of the three types of calcareous fen communities described in Massachusetts. They are rare species "hot spots" with many associated rare plant and animal species.

Environmental setting: Extremely rich fen communities occurring in areas that are slightly to moderately sloping with calcareous groundwater seepage that is often visible as distinct rivulets. Where there is heavy groundwater discharge, the mineral soil is exposed. There can also be small hummocks of organic matter accumulation. Sites that are more highly disturbed have less woody shrub growth.

Vegetation Description: Low graminoid/herbaceous communities dominated by sedges, such as inland prickly sedge (*Carex interior*), delicate sedge (*C. leptalea*), yellow sedge (*C. flava*), and porcupine-sedge (*C. hystericina*). Typical herbaceous associates include grass-of-Parnassus (*Parnassia glauca*), rough-leaved goldenrod (*Solidago patula*), fen-goldenrod (*S. purshii*), and marsh-fern (*Thelypteris palustris* var. *pubescens*). There is a sparse tree and shrub cover. Common trees and shrubs include white pine (*Pinus strobus*), tamarack (*Larix laricina*), shrubby cinquefoil (*Pentaphylloides floribunda*), autumn-willow (*Salix serissima*), and alder-leaf buckthorn (*Rhamnus alnifolia*).

Associations: Seven calcareous fen vegetation associations have been described for western New England and adjacent New York state [Motzkin, 1994]. Calcareous sloping fens are equivalent to Motzkin's *Carex interior*-*Carex leptalea*-*Carex flava* type [Group III].

Habitat values for Associated Fauna: Calcareous sloping fens can function as vernal pool habitat if water remains standing for 2-3 months; these sections provide important amphibian breeding habitat. Several state-protected rare turtle species inhabit calcareous sloping fens. Regionally rare ant species are also known to occur in this community type.

Associated rare plants:

CAREX STERILIS	DIOECIOUS SEDGE	T
CAREX TETANICA	FEN SEDGE	SC
CYPRIPEDIUM CALCEOLUS VAR PARVIFLORUM	SMALL YELLOW LADY'S-SLIPPER	E
EQUISETUM SCIRPOIDES	DWARF SCOURING-RUSH	SC
ERIOPHORUM GRACILE	SLENDER COTTONGRASS	T
JUNCUS NODOSUS	- WL	
LOBELIA KALMII	- WL	

From: Swain, P.C. & J.B. Kearsley. 2001. Classification of the Natural Communities of Massachusetts. Version 1.3. Natural Heritage & Endangered Species Program, Division of Fisheries & Wildlife. Westborough, MA.

Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries & Wildlife

PETASITES FRIGIDUS VAR PALMATUS	SWEET COLTSFOOT	T
SALIX CANDIDA	HOARY WILLOW	- WL
SALIX SERISSIMA	AUTUMN WILLOW	- WL
SPIRANTHES ROMANZOFFIANA	HOODED LADIES'-TRESSES	E

Associated rare animals:

CLEMMYS GUTTATA	SPOTTED TURTLE	SC
CLEMMYS INSCULPTA	WOOD TURTLE	SC
CLEMMYS MUHLENBERGII	BOG TURTLE	E
GAMMARUS PSEUDOLIMNAEUS	NORTHERN SPRING AMPHIPOD	SC
STYGOBROMUS BOREALIS	TACONIC CAVE AMPHIPOD	E
WILLIAMSONIA FLETCHERI	EBONY BOGHAUNTER	E

Examples with Public Access: Several examples in Berkshire County. Massachusetts contains some of the best examples of calcareous fens in New England.

Threats: Changes in groundwater quality and quantity; and any human activities that disturb the vegetation, substrate, or water supply. In disturbed areas, cattails may displace calcium-loving species. Beaver activity threatens calcareous fen communities by altering surface water chemistry. There is evidence to suggest that ponding of water by beaver dams may increase the water's relative acidity possibly due to the accumulation of organic acids or to dilution from acid rain [Motzkin, 1992].

Management needs: Fires, grazing, and /or mowing may be necessary to maintain open fen habitats. More information is needed.

**Synonyms
USNVC/TNC:** Pentaphylloides floribunda/Carex (sterilis, hystericina, flava) shrub herbaceous vegetation [CEGL006326].

MA [old name]: SNE Calcareous sloping fen [CP3A1A1000].

ME: Not described.

VT: Rich Fen (Calcareous Fen).

NH: Calcareous Sloping Fen.

NY: Rich sloping fen.

CT: Carex interior-Carex leptalea-Carex flava temperate grasslands [Carex sterilis/Potentilla fruticosa community].

RI: Not described.

Golet & Larson, 1974:

Other: Group III [Motzkin, 1994]; Sloping graminoid fen community [Weatherbee & Crow, 1992, Weatherbee 1996].

Author: J. Kearsley **Date:** 7/21/99